

REMARKS

Summary of the Office Action

The Title of the Invention is objected to for allegedly not being descriptive.

Claim 6 stands rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement.

Claims 1-10 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

Claims 1-3 and 10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hu et al. (US 6,482,699) in view of Applicant's Admitted Prior Art.

Claims 4-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hu et al. (US 6,482,699) in view of Applicant's Admitted Prior Art and Tran et al. (US 6,455,362) and Gardner et al. (US 6,323,519).

Summary of the Response to the Office Action

Applicant has amended claims 1 and 6. Accordingly, claims 1-10 are pending for consideration.

Objection to the Specification

The Title of the Invention is objected to for allegedly not being descriptive. Applicant respectfully disagrees. Applicant respectfully asserts that the Title of the Invention is clearly indicative of the invention to which the claims are directed. For example, the Title of the Invention recites "METHOD OF MANUFACTURING SEMICONDUCTOR DEVICES" and the preamble of independent claim 1 recites "[a] method of manufacturing a semiconductor device, comprising the steps of:." Accordingly, Applicant respectfully submits that the Title of

the Invention is clearly indicative of the features recited by independent claim 1. Thus,

Applicant respectfully requests that the objection to the specification be withdrawn.

Applicant respectfully requests that if the present Title of the Invention is not acceptable, that the Examiner provide a proposed new Title.

All Claims Comply with 35 U.S.C. § 112

Claim 6 stands rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. Specifically, the Office Action alleges that “[i]n claim 6 the oxide and the first capping layer are etched through to the second capping layer, but the second capping layer is over the first capping layer.” Applicant has amended claim 6 to recite “wherein the oxide film is etched using the second capping layer as an etch stopper and the second capping layer is etched through to the first capping layer to form a screen oxide film.” Accordingly, Applicant respectfully submits that the subject matter recited by claim 6 is enabled by the specification, and respectfully requests that the rejection of claim 6 under 35 U.S.C. § 112, first paragraph, be withdrawn.

Claims 1-10 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant has amended claim 1 in accordance with the Examiner’s comments to recite the step of “forming a tunnel oxide film, a floating gate electrode, a dielectric film, a control gate electrode patterned in a cell region of a semiconductor substrate, and a gate electrode patterned in a peripheral circuit region of the semiconductor substrate.” Accordingly, Applicant respectfully requests that the rejection of claims 1-10 under 35 U.S.C. § 112, be withdrawn.

All Claims Define Allowable Subject Matter

Claims 1-3 and 10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hu et al. (US 6,482,699) in view of Applicant's Admitted Prior Art, and claims 4-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hu et al. (US 6,482,699) in view of Applicant's Admitted Prior Art and Tran et al. (US 6,455,362) and Gardner et al. (US 6,323,519).

Applicant respectfully traverses these rejections as being based upon combinations of prior art references that neither teach nor suggest the novel combination of features recited in amended independent claim 1, and hence dependent claims 2-10.

Independent claim 1 recites, in part, at least the step of "forming a first capping layer and a second capping layer on the semiconductor structure." Applicant respectfully submits that the "sidewall spacers 230" and "etch stop layer 231" of Hu et al. cannot correspond to the "first and second capping layers," as recited by claim 1. In contrast to Applicant's claimed invention, Hu et al. teaches, in FIGs. 3A and 3B, sequential steps of forming sidewall spacers 230 and an etch stop layer 231 over the sidewall spacers 230. Accordingly, the etch stop layer 231 of Hu et al. actually prevents etching of the sidewall spacers 230. Applicant's claimed invention recites that the first and second capping layers are formed before the formation of the gate spacer.

Accordingly, Applicant respectfully asserts that Hu et al. does not teach or suggest at least the step of "forming a first capping layer and a second capping layer on the semiconductor structure," as recited by independent claim 1, and hence dependent claims 2-10.

Applicant further asserts that the Office Action does not rely on Applicant's Admitted Prior Art, Tran et al., and/or Garner et al. to remedy the deficiencies of Hu et al. Moreover, Applicant respectfully asserts that Applicant's Admitted Prior Art, Tran et al., and/or Garner et al. cannot remedy the deficiencies of Hu et al.

Thus, Applicant respectfully submits that none of Hu et al., Tran et al., Garner et al., and/or Applicant's Admitted Prior Art, whether taken singly or combined, either teaches or suggests Applicant's claimed feature of "forming a first capping layer and a second capping layer on the semiconductor structure," as recited by independent claim 1, and hence dependent claims 2-10.

For at least the above reasons, Applicant respectfully submits that claims 1-10 are neither taught nor suggested by any of the applied prior art, whether taken alone or in combination. Applicant respectfully asserts that the rejections under 35 U.S.C. § 103(a) should be withdrawn because the above-discussed novel combination of features are neither taught nor suggested by any of the applied references, whether taken alone or in combination.

CONCLUSION

In view of the foregoing, Applicant respectfully requests reconsideration and the timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of the response, the Examiner is invited to contact the Applicant's undersigned representative to expedite prosecution.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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